



Cancer Research Center Hotline

The Hawaii Tumor Registry: More than Forty Years of Cancer Surveillance for the Islands

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Cancer remains a leading cause of morbidity and mortality in Hawaii. More than 5,500 new cancer cases are diagnosed statewide each year. High quality cancer surveillance is necessary for the development of prevention and control measures, for planning health care services, and for identifying research needs and deficiencies.

The Hawaii Tumor Registry (HTR), a population-based central cancer registry, has been responsible for the surveillance of cancer in Hawaii since 1960 when it was first established by the Hawaii Medical Association, the Hawaii State Department of Health, and the American Cancer Society Hawaii Pacific Division. Since 1973 the Registry has operated as a part of and been primarily funded by the National Cancer Institute's Surveillance, Epidemiology, and End Results Program (SEER), with additional funding from the Department of Health. Today the Cancer Research Center of Hawaii and the Department of Health jointly operate the Registry.

Assessment of the burden of cancer depends on accurate, reliable, and timely reporting of disease occurrence. Hawaii State statutes authorize the Registry to collect cancer data and the HTR has a long history of cooperation with Hawaii's health care facilities and providers who also share the responsibility for reporting cancer cases to the Registry. The HTR collects diagnostic and treatment information as well as follow-up data on cancer patients throughout the state. To date, the Registry maintains information on nearly 130,000 cancers diagnosed in Hawaii residents over the past four decades.

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The Hawaii Tumor Registry is consistently recognized for its high quality data amongst the SEER reporting regions. In addition, the Registry has received "Gold Star" designation by the North American Association of Central Cancer Registries (NAACCR) during the past few years. The HTR is staffed by highly trained professionals, including specialists in central and hospital-based cancer registry operations, cancer data collection, quality control, medical coding, and data systems. Cancer surveillance has become increasingly complex over the past decades with significant advances in medicine and information systems. Accordingly, HTR staff members undergo ongoing continuing education in order to keep abreast of changes in diagnostic and treatment modalities, pathologic classification, and medical coding schemes.

The HTR's database reflects Hawaii's unique and diverse population, including Hawaiian, Asian and other Pacific Islander populations. The Registry has been invaluable in demonstrating ethnic and racial variation in cancer incidence and survival. In Hawaii, cancers of the prostate and breast are the most common malignan-

cies in men and women, respectively, followed by cancers of the lung and colon in both genders. These patterns are similar to what is observed nationally. Comparisons of cancer incidence by ethnic groups within Hawaii, however, demonstrate some unique population differences. Some observations include the following:

- Caucasian men have a higher incidence of cancer overall compared to Japanese, Hawaiian, Chinese, and Filipino men. This difference is due primarily to the high rate of prostate cancer in Caucasian men relative to other groups.
- Hawaiian and Caucasian women have higher incidences of cancer overall compared to Japanese, Chinese, and Filipino women.
- Japanese men have the highest rate of colon cancer but the lowest rate of lung cancer compared to men of other groups.
- Hawaiian and Caucasian women have the highest rates of breast and lung cancers compared to women of other groups.

The Registry serves as an information and research resource for the community. Each year the HTR responds to hundreds of requests for cancer data by clinicians and other health care professionals, researchers, community organizations, governmental agencies, and students. National and Hawaii cancer statistics collected by the Registry are available through a public use website and database maintained by the National Cancer Institute <http://www-seer.ims.nci.nih.gov/>. As one of 18 SEER registries nationally, which comprise approximately a 24% sample of the US population, the HTR contributes to national estimates of cancer incidence and mortality. Publications include the *Cancer Statistics Review*, *Cancer in North America* and *Cancer in Five Continents*.

In addition to the collection and dissemination of cancer data, the HTR provides ongoing support to various research projects in the state. The HTR has also collaborated nationally with other SEER registries to facilitate a number of research projects including a study of participation in clinical trials by pediatric patients and a study of treatment patterns among individuals diagnosed with cervical, colon, and breast cancers.

Increasingly, it has been recognized that tissue remaining from cancer-related surgical procedures can provide valuable information on cancer etiology. The Registry has recently worked with the Cancer Research Center and community pathologists to facilitate the development of a population-based repository of archival cancer tissue. This repository will serve as a research resource for clinicians and researchers throughout the state and nation. The Cancer Center is currently working with a team of pathologists utilizing state-of-the-art technology to create tissue arrays from these archival tissues. These arrays have the advantage of using very little of the original tissue and allowing for hundreds of specimens to be assayed on a single slide.

The HTR continues to be a leader and active participant in cancer registration and surveillance activities nationally and internationally. In June 2003, the Registry will host two international conferences in Honolulu: the North American Association of Central Cancer Registries (NAACCR) and the International Association of Cancer Registries (IACR) through the WHO's International Association for Research on Cancer (IARC). These conferences are expected to highlight Hawaii's contributions to research activities and attract cancer surveillance professionals and researchers from throughout the nation and the world.